

REMARKS

Claims 1-33 are pending in the application. Claim 1 is an independent claim with claims 2-25 depending therefrom. Claim 26 is an independent claim with claims 23-33 depending therefrom. Claims 4, 5, 16, 19, 20, 23-25, and 33 have been withdrawn from consideration as being drawn to a non-elected species.

Claim 6 was indicated as objected to but allowable if rewritten in independent form. Claim 6 is amended herein to be placed in independent form and is thus allowable.

Claims 3 and 28 were rejected under § 112, second paragraph, as set forth in paragraphs 5 and 6 of the Office Action. Claims 3 and 28, as well as 12 and 31, have been amended to alleviate the noted point of possible confusion. As amended, the claims for fluid flow within the housing such that the fluid flows to a perimeter of the disk or flat planar members and then migrates radially inward between the opposing surfaces of the planar members or disk. Applicants believe that use of the word “around” created the point of confusion.

Claims 1-3, 7-15, 17, 18, 21, and 22 stand rejected under § 102(b) as being anticipated by Utracki et al '956, as set forth in paragraphs 7 and 8 of the Office Action. Claims 26-32 stand rejected under § 103(a) as obvious in view of Massengale et al. '967 and Utracki et al '956 as set forth in paragraphs 9 and 10 of the Office Action.

Applicants respectfully submit that all of the pending claims as amended and presented herein patentably distinguish over the primary reference Utracki et al. '956 alone or in combination with any other references of record, as set forth below.

Claim 1 as amended herein calls for the opposed restriction devices to have opposing surfaces in contact against each other. These opposing surfaces have a degree of **random** surface roughness and opposed surface area that defines a **random** flow path between the opposed surfaces. The degree of surface roughness is defined as a function of a desired flow rate of fluid through the restrictor. For example, a greater degree of surface roughness will increase flow rate through the restrictor. Similarly, independent claim 26 has been amended to reflect the same limitations discussed with respect to claim 1.

The flow mixer of Utracki et al. '956 utilizes opposed die members 20, 30, 32, and fluid flow through the mixer is between the opposed surfaces of these die members. The die members, however, include precisely defined symmetrically opposed protrusions 20', 32'. These protrusions and the exact shape thereof are the fundamental premise of the invention according to Utracki et al. '956. The shape of the protrusions and angle of the sloped surfaces (referring to Fig. 4) define inlet chamber C1 and intermediate chambers C2, C3, between the opposed die members 20, 32. The shape of the protrusions and dimensions of the chambers are critical to the invention of Utracki et al. '956, as described in detail at column 5, lines 25-63.

The die members 20, 32 of Utracki et al. '956 do not have opposed surfaces with a relative degree of random surface roughness that defines a random flow path between the opposed surfaces. The flow path between the opposed surfaces of the dies 20, 32, is defined exactly with precise dimensions and sloped surfaces of the protrusions 20', 32'. The flow path between the opposed die members 20, 32, is in no way random.

Accordingly, Applicants respectfully submit that independent claim 1 patentably defines over Utracki et al. '956 and is allowable. Claims 2-5 and 7-25 depend from claim 1 and are thus allowable for at least the reasons claim 1 is allowable. Claim 1 is generic to withdrawn claims 4, 5, 16, 19, 20, and 23-25.

Independent claim 26 drawn to a medical fluid delivery system incorporating a flow restrictor is allowable over the combination of Utracki et al. '956 and Massengale et al. '967 for essentially the reasons discussed above with respect to claim 1.

Massengale et al. '967 was cited for disclosing a fluid delivery system, and does not rectify the deficiencies discussed above with respect to Utracki et al. '956. Claims 27-33 depend from claim 26 and are allowable for at least the reasons claim 26 is allowable. Claim 26 is generic to withdrawn claim 33.

With the present amendment, Applicants respectfully submit that all pending claims patentably distinguish over the cited references, and that the application is in condition for allowable. Favorable action thereon is respectfully requested. The Examiner is encouraged to contact the undersigned at his convenience should he have any questions regarding this matter or require any additional information.

Respectfully submitted,

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